

Widening, and many other important extensions; but of all the undertakings upon which he was engaged for the Company, Mr. Mills often spoke of the bridge over the Medway at Rochester as the most arduous, and it is supposed that his health suffered to some extent permanently from his having to spend part of each day for several months under high atmospheric pressure, in the cylinders on which the bridge was built. He became slightly deaf at that time, an infirmity which increased with advancing years.

For some time his friends had seen that he was failing; in October 1891, he took to his room, almost to his bed, and died on the 8th of December following, in the seventy-third year of his age. Mr. Mills was elected a Member of the Institution on the 1st of March, 1870.

WILSON WEATHERLEY PHIPSON was the third son of the late Samuel Ryland Phipson, of Ladywood, near Birmingham, where he was born on the 31st of August, 1838. Both his father and mother devoted themselves to the welfare of their children; the former, who had been educated at the University of Jena, kept open house at Ladywood, and amongst the visitors with whom young Wilson was thus brought in contact, were Sir Henry Bulwer, Thomas Carlyle, Macready, Dr. Kennedy (of Cambridge University), and other distinguished men.

About the year 1847 his father lost a large sum of money by the failure of the North of England Joint Stock Bank and of a bank in the United States in which he had become largely interested. These losses induced him to leave England for some continental city where living and education were cheaper. Wilson was between ten and eleven years of age when his parents migrated to Brussels. He was educated there, and also at Paris, where his family resided for a few years before they returned to England, and where, through the instrumentality of Earl Cowley, his father was enabled to enter him as a student at the *École des Ponts et Chaussées*. This was about 1857. Whilst in Brussels he was for a short time a pupil of Dr. Van Hecke, who had discovered a new method for the heating and ventilation of hospitals which had already given some very satisfactory results both as to economy and efficiency. When his studies at the French School of Engineering were completed he assisted Van Hecke to warm and ventilate the hospitals Necker and Beaujon in

Paris, and subsequently in carrying out similar work at Bordeaux and in some of the Government buildings of Holland.

At this time Wilson Phipson was living with his parents in Brussels. His musical talents and genial qualities rendered him a general favourite. He made the acquaintance of the late Prince George of Prussia, who endeavoured to induce him to become his secretary and travelling companion. Phipson had, however, too many ties in Belgium, and he did not speak German. Though barely eighteen years of age, he had many excellent friends, some considerably older than himself, among whom were Baron von Rosenberg of Dresden, Leloup, Engineer-in-chief of the Northern Railway of Belgium, and Victor Eeckhout, the well-known Belgian painter. In the year 1859 his family came to London, whither he accompanied them with the object of introducing a new system of heating and ventilation devised by his old master, Van Hecke. The amount of prejudice and ignorance he had to overcome, both in the medical world and amongst architects, was astonishing. The art of ventilation was entirely in its infancy, and although complaints about the impure atmosphere of the law courts, theatres, hospitals, and other public buildings were of daily occurrence, he could not induce anybody to take the matter up. He published a pamphlet setting forth the great benefits of the new system, and read a Paper before the Medical Officers of Health who met at the Marylebone Court House. Several physicians who attended the meeting admitted the economy and efficiency of his scheme, but beyond this no immediate result was apparent. At length, however, through the influence of his father, he obtained the contract to warm and ventilate Baron Rothschild's private residence in Piccadilly and the bank in St. Swithin's Lane. The success of these works attracted the attention of some of the leading architects of that day, and several other important buildings were placed in his hands. In succeeding years many large banks, insurance offices, and other extensive buildings followed, among which may be mentioned the Royal Albert Hall, the Natural History Museum at Kensington, Exeter Hall, the Alexandra Palace, the National Provincial Bank, the Criterion Theatre, the University Medical Schools at Edinburgh, the Royal Exchange and Law Courts at Birmingham, the Royal Infirmary, Liverpool, and the new University buildings at Glasgow, a description of which he presented to the Institution.¹

¹ Minutes of Proceedings Inst. C.E., vol. 1v. p. 124.

In 1867 he married Elizabeth Humberstone Newcome, daughter of a solicitor. A short time previously his brother, Dr. Phipson, had settled in London. The two brothers were always staunch friends, and used to meet frequently at their father's house at Putney. In spite of increasing professional work, Mr. Phipson was for several years an active member of the Surrey Rifle Volunteers. In 1880, he again went to Paris, to ascertain whether any improvements had been made in the heating and ventilation of public buildings since his time. As the extent and importance of his work increased, his career became one of great anxiety and constant toil. Under his hands the heating and ventilation of large buildings had been greatly improved. He had long since abandoned the old plan and had adopted low-pressure steam on the gravity, or open circulation system, by which not only is the exact temperature required kept up, summer and winter alike, in any given section of the building, but if by accident the thermometer in any particular room shows an abnormal degree, it is at once indicated by an electric current which affects the dial fixed in the engine-room, where the man in charge can see at a glance what has happened and can rectify it without delay. Near the boilers are a series of these dials, corresponding to the different sections of the building.

In 1866, Mr. Phipson proposed to remedy the ventilation of the Birmingham Town Hall. He was scarcely listened to. In 1891, a quarter of a century later, he was invited to undertake the work, just before the triennial musical festival. It was his last work. The fatigue of long railway journeys—for weeks together he would sleep in a Pullman car—added to domestic affliction and trouble, must latterly have told upon his usually robust health. During the month of October of this year he travelled over three thousand miles in little more than a fortnight, to superintend works recently completed and to attend consultations. It was more than even his strong constitution could stand; he died very suddenly from the rupture of a blood vessel on the morning of the 21st of October, 1891, at the age of fifty-three.

Mr. Phipson was elected an Associate of the Institution on the 12th of January, 1869, and was transferred to the class of Member on the 26th of February, 1878.
